

What Is Claimed Is:

1. A method for transforming data from a source device color space to a destination device color space, wherein the source device is associated with a source device color profile and the destination device is associated with a destination device color profile, comprising:

transforming data from the source device color space to an intermediary color space associated with an intermediary color profile using the source device color profile, a source rendering intent, and the intermediary color profile, producing intermediary data; and

transforming the intermediary data from the intermediary color space to the destination device color space using the intermediary color profile, a destination rendering intent, and the destination device color profile.

2. The method of claim 1, wherein the source and destination rendering intents are different rendering intents.

3. The method of claim 2, wherein:
the source device is a printing press to be emulated; and
the destination device is a proofing printer to generate the output of the emulation.

4. The method of claim 3, further comprising:
receiving the data as an output of a graphic arts application.

5. The method of claim 3, wherein:
the source rendering intent is a colorimetric rendering intent; and
the destination rendering intent is a perceptual rendering intent.

6. The method of claim 5, wherein:

the intermediary color profile is a CIELAB color profile or a CIEXYZ color profile.

7. The method of claim 1, wherein the source and destination
5 rendering intents are the same rendering intents, further comprising:
zeroing the color components of the intermediary data before transforming
the intermediary data.

8. An apparatus for transforming data from a source device color
10 space to a destination device color space, wherein the source device is associated
with a source device color profile and the destination device is associated with a
destination device color profile, comprising:

means for transforming data from the source device color space to an
intermediary color space associated with an intermediary color profile using the
15 source device color profile, a source rendering intent, and the intermediary color
profile, producing intermediary data; and

means for transforming the intermediary data from the intermediary color
space to the destination device color space using the intermediary color profile, a
destination rendering intent, and the destination device color profile.

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9. The apparatus of claim 8, wherein the source and destination
rendering intents are different rendering intents.

10. The apparatus of claim 9, wherein:
25 the source device is a printing press to be emulated; and
the destination device is a proofing printer to generate the output of the
emulation.

11. The apparatus of claim 10, further comprising:
30 means for receiving the data as an output of a graphic arts application, the

means operable to provide the data to the means for transforming data.

12. The apparatus of claim 11, wherein:

the source rendering intent is a colorimetric rendering intent; and

5 the destination rendering intent is a perceptual rendering intent.

13. The apparatus of claim 12, wherein:

the intermediary color profile is a CIELAB color profile or a
CIEXYZ color profile.

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14. The apparatus of claim 8, wherein the source and destination
rendering intents are the same rendering intents, further comprising:

means for zeroing the color components of the intermediary data before
transforming the intermediary data.

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15. A computer program product, tangibly embodied in a computer-
readable medium, for transforming data from a source device color space to a
destination device color space, wherein the source device is associated with a
source device color profile and the destination device is associated with a
20 destination device color profile, the product comprising instructions operable to
cause a processor to:

transform data from the source device color space to an intermediary color
space associated with an intermediary color profile using the source device color
profile, a source rendering intent, and the intermediary color profile, producing
25 intermediary data; and

transform the intermediary data from the intermediary color space to the
destination device color space using the intermediary color profile, a destination
rendering intent, and the destination device color profile.

30 16. The computer program product of claim 15, wherein the source

and destination rendering intents are different rendering intents.

17. The computer program product of claim 16, wherein:
the source device is a printing press to be emulated; and
5 the destination device is a proofing printer to generate the output of the
emulation.

18. The computer program product of claim 17, further comprising
instructions to:
10 receive the data as an output of a graphic arts application.

19. The computer program product of claim 17, wherein:
the source rendering intent is a colorimetric rendering intent; and
the destination rendering intent is a perceptual rendering intent.
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20. The computer program product of claim 19, wherein:
the intermediary color profile is a CIELAB color profile or a
CIEXYZ color profile.

21. The computer program product of claim 15, wherein the source
and destination rendering intents are the same rendering intents, further
comprising instructions to:

zero the color components of the intermediary data before transforming
the intermediary data.

22. A method for transforming data from a source device color space
to a destination device color space, wherein the source device is associated with a
source device color profile and the destination device is associated with a
destination device color profile, comprising:

transforming data from the source device color space to the destination
device color space using the source device color profile, a source rendering intent,

a destination rendering intent, and the destination device color profile.

23. A computer program product, tangibly embodied in a computer-readable medium, for transforming data from a source device color space to a destination device color space, wherein the source device is associated with a source device color profile and the destination device is associated with a destination device color profile, the product comprising instructions operable to cause a processor to:
- transform data from the source device color space to the destination device color space using the source device color profile, a source rendering intent, a destination rendering intent, and the destination device color profile.

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